THE TINIEST OF OBJECTS. WHAT THE ATOM IS AND WHERE SUBDIVISION CEASES.

Atoms So Minute that Millions Together Would Be Hardly So Large as a Grain of Hand-Their Incoment Motton and Their Curious Way of Working in Steam

The man of science is at one time exploring the depths of space and becoming there conversant with magnitudes so vast as to tax his powers of conception to the utmost. At another time he is engaged in the study of objects far too minute to admit of their direct percention by any of his senses. That potent weapon for the investigation of nature which is suppied by the laws of mathematics is equally available for the discussion of the phenomena presented in such a mighty system as the Milky Way, or for tracing the movements of those atoms of matter so exceedingly small that they must necessarily clude every endeavor to perceive them.

It was at one time supposed that every substance must be susceptible of infinite subdivision. If we took a material object, say, for example, a sheet of paper, and cut it in half and repeated the operation sgain and yet again, ever halving one of the portions which was left by the preceding division, it used to be thought that though the fragments of paper must be ever growing less and less, yet it should be possible to continue this subdivision indefinitely it only sufficient delicacy of manipulation were ferthcoming. In other words, the idea was entertained that there could be no piece of paper so small but that it would admit of division again into two other pieces, each of which was still the substance possessing the qualities of paper. But now we know that the indefinite divisibility which is here postulated is not the of matter as it is in nature. Only a finite number of divisions could be made or conceived before the fragment which is arrived at, though perhaps itself veritable paper, could not receive any further subdivision without ceasing to be paper. Of course it may be said that in the case supposed we are operating upon a substance which is manifestly of a composite character. The result of the subdivision, when carried on sufficiently far, must therefore pecessarily disclose the ultimate ingredients of which the composite material known as paper is formed. Let us there fore take for our illustration some substance which, as far as we can tell, is absolutely homogeneous, inasmuch as it consists only of a single element. I select for this purpose a piece of iron, and suppose it to be divided into two portions. Let each portion be subdivided again, and yet again, until at last it shall have been reduced to the minutest portion of which our senses can take cognizance. Each one of the little pieces so obtained will still possess all the qualities of iron. We shall forther imagine that we are provided with some means for carrying on the subdivision of an iron particle to a point much beyond that which any mechanical appliance at our disposal can sweet. We shall even suppose that we are able to continue the subdivision of the iron long after the particles have become too minute to be visible, even in the most powerful microscope. Modern science has, however, taught us that though this subdivision can be carried on so far, yet it cannot be protracted indefinitely. A point would at last be reached where each of the little particles, though still possessing all the qualities of tron, would refuse to admit of any further subdivision. The particle in question may, no doubt, he composed of parts, but if we could separate those parts they would not be tron, they would not in fact be anything like This piece of iron which cannot be further reduced is called an atom. The derivation of this word indicates that the object to which it is applied is a something which cannot be cut. We are thus led to the conception that all matter on the earth or throughout the universe is constituted of aggregations of atoms. The sun itself is no more than an enormously great though quite definite number of ultimate atoms out of which all material ob-

jects must be composed. There is perhaps no other department of selentific research which shows so strikingly man's tremendous ignorance of nature. Any adequate information as to what these atoms of matter really are has been hitherto denied us A few facts may be stated. We know, at all events, that the atoms are so minute that millions of them would be required to be put together to form the bulk of a small grain of sand. It would, however, be quite erroneous to suppose that because these objects are so minute their structure is therefore simple. This is by no means the case. Some phenomena prove unmistakably that the atoms of certain elements, such, for instance, as those of iron, which I have already used as an illustration, must be snything but simple objects. They should rather be regarded as possessing a highly complex character and as elaborately formed from any different portions, these portions being in many cases animated by rapid and intricate movements. Indeed, it would seem that no experience of the grosser objects, which alone are perceptible to our senses, would be capable of affording any adequate conception of the extraordinary liveliness of atoms. I must try to explain some of their varied activities.

Let us think of the steam in the cylinder of a steam engine. The steam presses upon the piston and thus forces it up to accomplish its work. In our ordinary language we say that this work is done by the pressure of the steam on the piston, and everybody understands what is meant when we thus speak of high pressures and low pressures. If, however, we look a little more closely into the matter we shall find that what the engineer understands by the pressure of the steam has to be regarded in a somewhat unexpected light when the ultimate constitution of steam is considered. The water from which the steam is made is, of course, produced gen and hydrogen. Each molecule of steam is, atoms of hydrogen and one of oxygen. Steam thus consists of molecules too small to be subdivided into lesser particles of the same substance, namely, water. I any subdivision of molecu'e of steam were affected, then the parts into which it would be separated would not be water, they would be the atoms of the constituent gases from which that water was made The steam in the cylinder of the engine is to be regarded as consisting of a multitude of molecules of water. Each of these molecules is in a state of rapid motion. It is hurrying along with a speed which is sometimes slower and some times faster than that of a rifle builet. Even in a very small portion of space the multitudes of these molecules are prodigious. The number of them which are required to form as much steam or atmospheric pressure as would suffice t fill a lady's thimble, are to be represented by many billions. As these molecules are in such s less contiguity, and as they are incessantly darting about, it will not be surprising to find that collisions frequently take place between them The effect of a collision will be to divert each of the impinging molecules from the path in which it was proceeding before the collision took place, so that it bounds off again in some other direction. This new direction is simi larly pursued until the molecule is turned aside by the next collision. These operations take place so rapidly that each of the molecules will experience millions of collisions in each second As the molecules of steam in the cylinde dash about with their tremendous velocity they rain incalculable myriads of little blow upon the bottom of the piston. The effect of these impacts is to push the piston upward Indeed, what the engineer calls the pressure of the steam is merely the result of the myriads of little impulsive shocks which are given by the blows of the rapidly-moving molecules. I the heat from the boiler is still applied, while the steam generated is not allowed to escape

then, of course, the pressure of the steam rises

Bu; we may state what this means in a differ

ent manner. The increase of pressure arises

from the fact that the temperature of the

steam is increased. As the temperature in-

creas a the rate at which the little molecules

hurry along also becomes greater. There is, it

fart, a definite relation between the temperature

of the steam and the average rate at which its

molecules are moving. The greater the tempera-

ture, the greater the speed; the less the temperature, the less the speed. The increase of the pressure within the boiler is equivalent to an increase in temperature of the steam, and this corresponds to an increase of the average with which the molecules are animated. But with increased velocities of the molecules there would be a correspon ing increase in the vehemence of the lows which they administer to the inside of the boller, and consequently, as we say, the pressure in the boller is augmented. Under certain circumstances those prows may become a numerous and energetic that the tension of the ron or steel of which the boller is constituted nay no longer be able to withstand the strain to which it is exposed, in which case an explosion will be the result. This illustration will show to a certain extent how the temperature of a gas is connected with the average speed by which its molecules are animated

When two liquids, such as brandy and water, are placed together in a tumbler a complete fusion takes place. No doubt in this case the act of fusion is generally accelerated by the way in which one liquid is poured into the other Fusion would, however, proceed without such assistance; indeed it could not be prevented if the two liquids are in any way brought into contact. Suppose the water has been placed first in the glass and the spirit, being the lighte liquid, has been carefully poured on the top There will be at first a marked difference tween the two strata; a gradual blending of the two liquids, by what chemists call diffusion, will however, at once commence. Notwithstanding the relative lightness of the spirit, it cannot remain permanently distinct from the water as a vering of oil would do under the same circumstances. In due time the spirit descends through the water and the water ascends through the spirit, so that the mixture will ultimately be come as complete as if the two liquid had been shaken together in a bottle. Thus we see that the spirit, though actually lighter than the water, gradually sinks downward, while the water, though heavier than the spirit, gradually

makes it way upward.

The explanation of this phenomenon can be eadily obtained when we remember that each of the two liquids in question is made up of Across the boundary motion. which at first divides the upper from the lower tratum, a molecule of either liquid occasion ally dashes, and by the incressant repetition of his process the blending is ultimately accompliahed. It is quite true that the movements of he molecules in matter in the liquid state ar not so unrestrained as they are when the matter is in the gaseous state. Each molecule in a gas has, so to speak, a free run between one of its collisions with other molecules and the next. It eems, however, that the molecules of matte when in the liquid state enjoy a much more limited degree of freedom. In this case each molecule can only be detached from its associaion with some neighboring molecule, in orde o become associated with a third molecule Such interchanges of alliance among the liquid molecules are, however, incessantly taking place, and thus it happens that the molecules of the spirit become gradually dispersed through cules of the water gradually penetrate through the spirit, until at last the two fluids become completely blended. A solid substance, such as a piece of cold from

may seem to our senses to be quite devoid of movement in its ultimate parts. We have, however, the best reasons for knowing that if we had organs of sense some millions of times more acute than those with which nature has en dowed us, we should find that the molecules even of a piece of cold iron were animated by the liveliest movements. In the case of such a body, or of any body which may be terme solid, the movements of the molecules are o much more restricted character than they ar in the case of gas or even of a liquid. The ex tent of the movements of the particles of a soli are confined within very narrow limits. Each molecule, in fact, remains, generally speaking in permanent association with the other mole cules with which it was originally connected This is illustrated by the obvious truth that if a piece of solid copper and a piece of soli zinc are placed even in the closest contact no fusion of the two substances will take place. The movements of the molecules in the zinc are so parrowly restrained that they do no cross the boundary to any appreciable extent The molecules of copper are also confined in their movements within the mass to which they originally belonged. If, however, these two metals, instead of being in the solid form, have been melted into a fluid state, then the two fluids, if placed in contact, will speedily diffuse one into the other for under the influence of heat the amplitudes of the movements of the molecules have been so much increased that they are now able to shake themselves free from their original attachments. The atoms of the zine can thus cross the boundary and enter into the copper, and the atoms of the copper geneous material known as brass is the result.

Lord Kelvin has given a striking illustration to show how extremely minute must be the actual magnitudes of the molecules of matter Imagine that a rain drop the size of a pea wer to be magnified into a globe as large as the earth. Let us suppose that each of the mole cules in the drop of water were to be at the same time magnified in the like proportion, then we know that the dimensions of the molecules as thus increased would make them larger than shot, but smaller than cricket balls.

We may also illustrate the fineness, so to speak, of the ultimate texture of matter in the following way: Think of a plate of copper possessing the same thickness as the page on which this is printed. It is perfectly certain that if we had machinery by which we could beat ou that copper until the plate was reduced to the thousandth part of its present thickness, the thin sheet so produced would still be found to present all the characteristics of copper. Eve the sheet could be beaten out ten times more so that its thickness were ultimately reduced t one ten-thousandth part of that of the original sheet of paper, the substance in the plate would still possess the characteristics, chemical and physical, of actual copper. It can, however, be inferred by an ingenious line of reasoning, given by Lord Kelvin, that if the plate thus attenuated were to undergo a yet further reduction. which would make it to have no more than the millionth part of the thickness of this sheet of paper, then the substance would have ceased be copper in the sense in which we understand the word. It would approximate to a layer of individual molecules, further subdivision of

which would be impossible. Some very interesting results illustrating the ninute subdivision of matter can be derived from certain beautiful experiments made by Prof. Boys. Having melted the common mineral quartz at an exceedingly high temperature, he has succeeded in drawing out extremely fine fibres of this remarkable substance. method he employed in this delicate operation is one of great ingenuity. To produce the fibres he used a little crossbow wherewith he dis-charged a light arrow which had been previously attached to the melted quartz. As the arrow flew through the air it drew out behind it a filament of the fused mineral. In this way Prof. Boys succeeded in obtaining fibres possess ing more tenuity and delicacy than had ever been before attained by human art with any material whatever. The fibres of quartz produced in each discharge of the arrow are about forty or fifty feet long. They are remarkably miform in diameter, and the strength of these fibres, due allowance being of course made for their dimensions, is truly astonishing. Drawn quartz thus appears to have a tenacity not less

han that of ordinary steel. The thickness of a fibre of silk as wound from ne cocoon is about one-five-thousandth of an nch. Prof. Boys has drawn fibres of quartz so fine that if a hundred of them were twisted into a cable, its thickness would be about the sam as that of a fibre of unspun silk. But this statement, remarkable as it may seem, is by no means adequate to express the highest order of fineness which has been obtained in certain of the quartz fliaments. They have indeed been drawn with such exceeding delicacy, that they can no longer be perceived by the naked eye. Indeed, Prof. Boys has assured us that where the end of the fibres gradually tapers off its thickness has become so small that it caunot even be perceived by the microscope. It is thus

Sirtain that some of these fibres are so fine that hey do not possess a thickness of a hundred thousandth part of an inch. This extraordinary tenuity is strikingly illustrated by Prof. Boys when he says that a lump of quarts of the lie of a walnut contains sufficient material for a fibre long enough to wrap six or seven times

tround the whole earth. These results demonstrate in a striking way the extreme subtlety of the molecular texture of matter. The quartz fibre, though only one hundred thousandth part of an inch in thickress, still seems to be as veritable quartz as was the original lump of mineral before it was fused for the operation of drawing out. In other words, so vast a number of molecules are con tained within the thickness of the one hundred thousandth part of an inch that the physical properties of the substance remain the same i

the delicate filament as in the large mass. Many illustrations might be given of the sig nificance of molecules in connection with the visible operations of nature. Let us take for instance the supreme beneficience of the sun it We shall, I think, be able to demonstrate that we are indebted to the smallest material objects for conferring on the sun its ability to send uslight and heat. We receive the solar radiation in the form of waves transmitted through that mysterious fluid -the ether-which seems to fill all space. The vibrations of the ether enter the eye, and falling on the retina produce the sensation of light. These wave start from the sun, and they have there beer endowed with the energy which is to carry them across the 93,000,000 miles which se arate the earth from the great luminary. If we inquire into the actual method by which the necessary waves seem to have been imparted to the ether, we shall soon learn the extent to which we are indebted to the movements which take place within the atoms. The sun is at a temperature so high that, in its outer regions at all events, it is actually in a gaseous state. The molecules of these gases are continually dashing about with speed corresponding to the exalted temperature hich they possess. It must be understood that although an atom is so minute an object, it is still in some cases, at all events, of a highly complex character. Portions of an atom are found to be free to move relatively to other portions, so that in consequence of the collisions with which one atom strikes against another vibrations in the several parts are kept up. The atoms may be said to quiver under the influence of the repeated shocks which they receive just as elastic odies would do. Indeed, it would seem that the most perfect type of an elastic body may be illustrated by the deportment of these little atoms. The rapidity of their vibrations differs somewhat for molecules of different substances. The molecules bave, it would seem, the power of trausferring part of the energy of their vibrations to the ether, and thus of originating waves which speed on their way to the earth to be interpreted by us cither as light or as warmth, according to the senses to ternal energies of the atoms ever tend to be rein the ether yet those energies are ever and anon recuperated by the fact that as the atoms are dashing about they come into collision with other atoms. In consequence of these collisions, part of the energy which is due to the translation of the molecule as a whole is transmitted into that internal energy due to the motion of the parts of the molecules, which has the capacity of producing ethereal vibrations.

Such is an outline of the physical cause those wondrous natural phenomena, the radiation of light and heat. When we come to examine into the details of the subject, multitudes of interesting points arise which are consected with some of the most remarkable developments of modern science. Let us take, for namely hydrogen, that gas which we know so and wide throughout the universe. The sun, like many other celestial bodies, contains large quantities of hydrogen, and its atoms are of course vibrating in the way that I have auggested. But these vibrations are known to be of manifold character. They do not all seem to be performed in the same time, and conseare originated by the molecular vibrations of hydrogen are not all of one type. There are a large number of quite distinct ethereal waves produced by the hydrogen molecules. In the ordinary way in which these waves are received by our eyes, we have no means of discriminating between them. Modern science has, however, at its disposal a beautiful instrument called the spectroscope, which enables us to take a complex bundle of ethereal waves and, so to speak, to sort them out into their different We can discover by the spectroscope the types. everal waves which are blended in a beam of light. Thus, to take the case of hydrogen, already mentioned, we find that among the solar beams which reach our eyes there are quite a mber of distinct rays due to the presence of hydrogen in the sun. Besides those waves from his gas, which produce effects visible to the eye, there are also many other ethereal waves ansmitted from the atoms of solar hydrogen which are unable to appeal directly to any organs of sense which we possess, but which nevertheless possess the power of making themselves manifest on the photographic plate. The photographic spectrum of hydrogen, as it is called, contains a multitude of lines. of those lines corresponds to a distinct form of idea of the extraordinary complexity of that atom of bydrogen gas, which, itself so exceed-

ingly minute, is still able to give rise to so many different forms of ethereal agitation. Freez other element healdes that one which I have named is also able to produce waves in the ether when suitable conditions as to temperature and pressure are present. It is a remarkable fact that the waves which arise from each element are generally speaking so entirely distinct from those produced by any other element that we have, with the help of the spectroscope, a method of ascertaining what the actual substances may be which are present in the sun. In some cases the spectra of the elements are extremely complicated, indicating a corresponding complexity in the atom belonging to the eleample, be of a very elaborate character, for the apectrum which it produces contains far more lines than are to be seen in the spectrum which is due to hydrogen. Thousands of lines, indi-cating the existence of thousands of distinct elonging to the most common of metals. The nore we learn of the ultimate texture of matter ROBERT S. BALL.

JERSEY FARMERS INCENSED.

The Trenton Legislature Refused to Fur-nish Premiums for the State Pair.

There are 30,000 farms in New Jersey, and the diversified agricultural products of that State, for which New York and Philadelphia supply constant markets, have made many of the Jersey farmers richer than some of their the Jersey farmers richer than some of their Western brethren. In March, 1874, more than twenty years ago, a considerate and sympathetic Legislature in Treaton doel Parker of Freehold, a sturtly and typical Jerseyman, was then Governor) adopted what is known as the state Premium law, the object of which was, the statute recites, "to incite a true spirit of generous and profitable rivalry among the fillers and encourage the same." For this purnous late and encourage the same." For this purnous the society of Agriculture of New Jersey and the editions was established the State Promium Committee, made up of three members of the State of citizens of the State designated by the tovernor, and these six persons, with the Governor
added, were to distribute \$3,000 a year from
the public funds to be used as premiums for the
most deserving agricultural exhibits in the various classes sent to the annual State fair.
Since 1874 the State has appropriated and
paid annually the \$3,000 provided for, and this
amount has been paid out yearly by the State
Agricultural Society. The State premiums are
not paid this year by the Agricultural Society,
because the Legislature refused to make the
necessary appropriation. The statesment of New
Jersey answer the complaint of the farmers by
declaring that matters of more importance than
the payment of agricultural premiums for
pumpkins, squashes, and Mount Holly turkeys
demanded attention at Trenton last winter,
and, moreover, the provision of the State Prenium law adopted in 1874 was not designed to
make an annual appropriation in perpetuity.

DEER, MOOSE, AND CARIBOU into the lake. Mr. Randall has hunted walruses on the coast of Labrador, pumas in South
America, and great bears on the coast range,
but better than all of these sports, he declares,
at he sensation of feeling along the flank of a
f.000-pound moose as he stands belly deep TRIP TO MAINE.

A Deer May Be Killed at an Outlay of 850 all Erneuges Included-Chances of Getting a Moose-Opinions Differ About Moose Calling-Luck in Carthon Hunting-The Downfall of a Famous Pencher

NORCROSS, Me., Sept. 12.-Though open time for Maine's big game does not begin until Oct. 1, most of the really good guides are already engaged for a large part of the season. and many of the sporting camps have been leased, some of them months ago, as soon as it was definitely learned that deer were going to be plenty and easy to get. Luther Gerrish, a famous guide, who has grown rich conducting aporting camp, will make no more engagements this year, though hunters should offer him fabulous sums for his services. Bill Moriarty has all he can do from now on until the New Year. Four or five guides who depend upon Gerrish for jobs are satisfied with what work they have bargained for ahead, and of the two dozen guides who smoke cigars and tell moose stories around Norcross station there is not one who makes complaints about the busness outlook. Of course there are plenty of guides in the woods who are looking for jobs: but all the older ones, who have taken parties out for three or four years, are satisfied to keep with the telegraph office and wait. knowing they will have their hands full when To a man who has hunted one or more seasons n Maine the questions about what to take along and how much it ought to cost to get a deer or a moose are easy to answer. He has been there. and knows all about it. Now, while there are 10,000 people from New York State who come

rifles and great birch bark moose horns, which make a pretty showing when spread out before the gaping crowds at the backwoods railroad station. Though it is unjust to accuse these men of trying to kill moose in close time, the fact that the moose love-making season begins about Sept. 15, and that make moose will then rush through the woods after any kind of noise, seems to indicate that the early hunters will at least defend themselves should any angry moose assault them. Day after day the streams of hunters drop off at the stations, purchase supplies, hire guides, and float away across the lakes toward the wilderness, and the wardens see them depart without making an attempt to follow. Perhaps the hunters will kill no moose. If so, the parties who went in late in August did not need magazine rifles and moose horns.

come out on the railroad track and dash him-self to-death against an oncoming engine, evi-dently believing that he was giving battle to a rival. In short, the masculine moose is very Quixotic in his ways and liable to show fight to almost anything. The lonely bunter who takes his rifie in one hand and his moose horn in the other and goes out to the dim forest and pours the sadness of his soul into a birch-back fun-

the sadness of his soul into a birch-bark tun-nel has held a high place in popular sporting fiction for many years; and city youths who read the tales cannot rest until they have learned the art. Two or three ambitious Maine guides who have grown too old or too lazy to hunt, have earned good wages for several years by giv-ing lessons on the moose horn. The students,

ivors will emigrate, and the

faine until it hardly pays to seek for the few

to Maine every year for game, there are fully half a million who would like to get a deer, and of these perhaps 10 per cent, would hazard a visit to the woods if they could know what the probable expense would be and how much time they would have to spend in order to accomplish their desire. The best-in fact the only way-to gain this information is from the guides, who have been out with hunters year after year, and are better qualified for telling the truth than any other class of persons. "Can a man come from New York to Maine shoot a deer, and get back home for \$50?" The above question was put to fully thirty Maine guides last week, and every one said it was not only possible but also probable if the

hunter came in the right season and did not attempt to put on too much style. The guides say the very best time to get big game is at the opening of the season early in October. The deer and moose are still near the lakes, and will stay there until the last black fly is gone, making it easy for hunters to paddle up in canee and shoot them. Under ordinary conditions a man who is a fair shot ought to kill a deer every day while the flies are abroad. Though October is the best month for killing deer, for camping out, and for a general good time in the woods, the heat usually spoils the meat in a few days, and if a hunter wishes to take his venison home he would do better to come later. November is a good month. The trees are free from leaves, giving the sportsman a wide view in the hard-wood forests. The air is cool and crisp, and one may walk long and far without getting exhausted. Above all else, the hunter is sure of getting the carcasses bome in good condition, no matter how far he has gone into the woods for his prey. But the November hunter is not happy, after all. No matter when he goes, or how softly he steps, the tell-tale leaves rustle under his feet, announcing his coming rods away, and he may travel for days and weeks in the heart of the deer country and never set his eyes upon a single animal.

The old hunter, who has been to Maine in times past, watches the weather bulletins closer warm days of October slip by without regret. 'autumn leaves" excursions which railroads advertise have no interest for him. Reports that the foliage has dropped to the ground and lies in heaps by the sides of the ground and less in heaps of the sides of the wood roads do not stir his blood a particle. He studies the weather charts and waits. At last he learns there has been a heavy downpour of rain, soaking the leaves and forest mould until they urip with moisture; and before his friends miss him he is away, tripping cheerfully over a lous leaves, enabling him not only to see but to shoot the animals he wants. impossible to tell in exact

of course it is impossible to tell in exact figures just what it will cost a man to come to Maine and get a deer; but by using a little plain arithmetic it is easy to arrive at the average cost, which will serve as a guide to any sensible novice who wishes to shoot in this State. Arm, ammunition, and clothing should not be counted in the bill as they can be employed on ars to travel in partnership, as one guide will be enough for both. Supplied with repsating rifles, ammunition, and pienty of warm, loose, fitting clothing the hunters should get an early luncheon in New York and start away before noon. From that time on until they secure a deer the outlay for each man should be about as follows:

to Hanger, including berth on sleeper as in Hanger, or the words Cost of camp supplies Haif of guide's wages, three days

.. 820 00 Total With average luck in an average hunting re With average luck in an average hunting region each hunter should get a deer in three days at a total cost of not over \$30. As it oust each hunter \$18 to reach the woods, he can, of course, set home for the same sum. In fact, by purchasing round trip tickets over any of the lines, he can have fully \$10, thus reducing the travelling expenses from \$36 to \$20. As the camp supplies and hire of a guide should not exceed \$12 for each man, he can have a hands me margin of \$12, which is big enough to our many Maine luxuries or to prolong the hunting trip for another week. Put into plain English, the above figures mean that two healthy men, carrying two rifles and two \$50 b.lt. should leave New York Monday noon, go to the Maine woods, get two deer and reach b.li*, should leave New York Monday noon, go to the Maine woods, get two deer and reach New York again by Saturday noon. They should live comfortably all the time, and should arrive in New York with money enough left to take themselves and their ventson home in hacks. Many New York bunters who bring camping outfite and know the woods well enough to dispense with the services of a guide secure two deer—which are all the law allows one man to kill—for less than \$30; and again, many sports who are not hunters seend from secure two deer which are all the law allows one man to kill- for less than \$30; and again, many sports who are not hunters spend from \$100 to \$500 and ket no deer at all. As an average between these two extremes, the man who gets a deer for \$50 can be satisfied that he has not paid too dearly for his sport.

Hill York of Milnocket and Luther Gerrish of

who gets a deer for \$50 can be satisfied that he has not paid too dearly for his sport.

Hill York of Milnocket and Luther Gerrish of North Twindam say that of the many thousand hunters who come to Maine every year only one in fifty is fortunate enough to secure a moose. Tom Norton of Dover, Charles Hopkins of Norcross, and several other guides say they will guarantee a moose to any fairly good marksman who is willing to expend \$100. Norton, whose hunting ground is near Sebec Lake, has cards printed offering to get a moose fer \$100—no moose no pay"—and has made a small fortune by the practice. Two years ago a Mr. Hogardus of New York came down and hired Norton for a trip after moose. They left llover about noon. When they had gone ten miles into the woods Bogardus pulled out \$100:

"Show me a moose and I'll give you all of it." Norton led him four miles up stream, where Bogardus not only saw a big bull moose, but also shot it. They brought it into llover in time to take the morning train for New York. Sluce then Norton has ceased to hunt at day's wages and takes contracts to get a moose for every patron or furnish his services for nothing. He has failed to get the moose several times, but on the whole he finds the contract system more profitable to himself and more satisfactory to his patrons.

Game Commissioner Carleton, ex-Mayor Weld of Oid Towo, and a few other well-informed hunters have been quoted as saying that after years of calling with moose horns the large male moose are very scarce in Maine, so scarce, indeed, that none but the most fortunate and most persistent hunters obtain them. To offest this evidence, William J. Randall, a wealthy citizen of Providence, R. L. who has lived in the Maine woods all the year round since 1892, declares that any man who wants a big buil moose can shoot one if he will go where the most fortunate and most persistent hunters obtain them. To offest the time, is continually cruising in the wilderness, and having nothing else to do has gathered more game lore than most hun

barroom on horsecace. This cowody acceptance got his name into the papers, and he lost his commission as game warden. He is now getting a good living as sa guide, and men who know say that the caribou are coming back since Savarin ceased to hunt them.

It is well for the would-he hunter to rememite the same of the sa varin coased to hunt them.

It is well for the would be hunter to remember that all the Maine guides keep tents, cances, and cooking utensils, which they rent to sportsmen. A guide who takes nothing but his gun animals. He approached three mosses of close that he put his hands on them. In trying to the a line around the fourth one the mosse jumped and upset the cause, spilling both occupants

and axe along works for \$2 a day and board. If he takes his camping and canoing outfit he expects \$3 a day. The hunter purchases the food for himself and guide. It can be bought near any of the railroad statlons, and should not cost over 50 cents a day for every man in the Darty, though, of course, the man who wants luxuries can get them. It is much cheaper and better every way to hire an outfit than to buy one. It halso a good bian to offer a small cash bounty to the guide for finding the game. The guide gets his wages anyhow, and the bounty gives him a keeper interest in the success of the enterprise. If a hunter thinks he will need alcoholic stimulants during his trip he had better bring them along, as most strangers have to get assaned to the Maine goods. Every hunter should take a rifle and carridges for the same. Of course a camera and a spyglassare handy, but it is noticed that few hunters carry them on a T.000-pound moose as he stands belly deep among the lily pads.

Moose are fairly plentiful along the West Branch lakes south and east of Mt. Katahdin; but a hunter who wishes to get the largest moose in the shortest time and "darn the expense." should cut loose from railroads and but a hunter who wishes to get the largest mones in the shortest time and "darn the expense," should cut loose from railroads and telegraph lives for a week or ten days and paddle down the Alleguash River to the Canada line. This trip, if taken late in November, when the meat will not spoil, is full of the keenest enjoyment. Bill Moriarry, Mr. Raudail, and others who have travelled widely say that a hunter in this region can castly secure a moose inside of a week. Just what the moose will cost depends upon the size and character of the party. The time of year, the weather, and several other conditions that make estimates little better than guesswork. On the whole a good marksman who has two weeks of time and \$200 to expend can safely rely on getting his moose.

Even now, days ahead of the open season, the woods are filling up with hunters from out of the State. They all come armed with repeating rifles and great birch bark moose horns, which make a pretty showing when spread out before the santes crowds at the backwoods railroad

THE NEXT SEA PIGHT.

To Be Fought Under New Conditions Made by Smokeless Powder.

WASHINGTON, Sept. 7.- The next great sea but for the discovery of smokeless powder.

It has been only in the last few years that the authorities of the War and Navy departments have turned their attention toward perfecting a brand of powder capable of high velocities nick burning, and at the same time producing little or no smoke. In the last few months both lepartments have found a formula which, they declare, will give this Government the stronges

kill no moose. If so, the parties who went in late in a ugust did not need magazine rifles and moose horns.

Glid woodsmen differ about the value of the services of a guide who knows how to call moose. Joe Francis, an Old Town Indian, says that he makes his call to imitate the cry of a cow moose, and insists that he can tell the difference between the call made by an old cow and a young one. Lather Gerrish, who was born among hunters, and has killed moose for about fifty years, says that in calling moose he simply imitates the challenge of the built moose. Jim Coomba, Charles York, Bill Moriarty, and other famous guides declare that the cow moose never utters a cry of any kind, and that the idea of imitating the female is the worst kind of nonsense. Mr. Parker of Parten has a standing offer of \$100 to any man who will convince him that the cow moose makes any sounds at all. Nearly every guide says that in the love-making season the male moose will dash madiy at anything and everything they see or hear. Hunters have sat in a thicket and tolled moose to them by rapping their rifles against the trees, by snapping twigs, by whistling, and by blowing a tin horn. A moose has been known to come out on the railroad track and dash himself to death against an oncoming engine, evidently believing that he was giving battle to a rival. In short, the masculine moose is very declare, will give this Government the airongest and best powder known to the military powers of the world.

In a few weeks the navy will purchase unward of 1,000,000 pounds of the new powder for the vessels in service, and this will be followed later by will larger orders, until there is a good stock on hand for all emergencies. At present the factory at Newport cannot furnish the powder as fast as the ships require it, so that it will become necessary for the department to send its formula to some private powder manufactory in order to facilitate deliveries and increase the supply.

The last war shows that during some of the great fleet evolutions in the South ships frequently ran foul of one another through their inability to navigate properly when obscured in smoke, and that many a mistake was made because the signals could not be seen from the flagship. There were instances also when one vessel fired on a ship of her own squadron, believing her to be a ship of the enemy. With the new powder twonty vessels might engage an equal number, but every ship would be able to read the orders of the Admiral accurately. The same bumber of vessels in an engagement where the present black, slow-burning powder was used would develon a smoke cloud which, in five minutes after the action began, would practically shut out of sight each vessel from the other. The confusion on board when the men are not able to see those at the nex gun is said also to have led to mistakes resulting in some instances to the loss of the vessel.

The adoption of the new powder by the army will necessitate aiterations in the tactice applying to operations on the field of battle. The

have earned good wages for several years by givling lessons on the moose horn. The students,
most of whom are young folks from Massachusetts, follow a regular course of study, as it they
were attending a musical conservatory. Un to
date no graduate has captured a moose. Meanwhile the uneducated male moose keep crashing through the brush and charging across
townships whenever they feel like it.
Luck is an element that holds a more important piace in caribou hunting than it does in
any other sport. Observing guides can tell
where to find moose and deer. They know the
habits of these animais, and can make guesses
that are almost prophetic. All the best guides
can sag about caribou is that they saw a herd
in a certain place yesterday or last week. If
honest, the guides will probably confess that
they do not expect to find any caribou in their
former feeding grounds for weeks to come.
The man who discovers a herd of caribou can
usually shoot all he wants. After the slaugher
the survivors will emigrate, and the hunter is The adoption of the new powder by the army will necessitate alterations in the tactic applying to operations on the field of battle. The infantryman who fires with this powder at once obtains the advantage of having a clear field of fire. But, on the other hand, if he is unprovided with cover, either natural or artificial, there will be no protecting cloud of smoke to conceal him, and should the enemy have found cover he, on his side, is more vulnerable than when the smoke showed his position. The supposition that troops can be exposed to fire without knowing whence it comes is more or less fanctiful in the opinion of fire. Miles and the best military tacticians in Washington.

It is admitted that with the suppression of smoke the advance against a position will no doubt be somewhat more difficult than formerly, but the danger will not be greater until

at is admitted that with the suppression of smoke the advance against a position will no doubt be somewhat more difficult than formerly, but the danger will not be greater until within 500 or 600 vards of the enemy. Beyond this point, when distances can be judged with less difficulty, when the errors of aiming are small, and where the trajectory of the bullets of the new army gun will be altogether dangerous, it will make little difference, the experts say, whether smokeless or non-smokeless toword is used. With high-powered guns capable of terrific velocities and greater accuracy than the old wartime pieces, it will be of the greatest benefit to soldiers to have a clear field, without a cloud of smake, so that long-distance aiming can be done and a good target made of the enemy. The absence of smoke, the army says, will be of material advantage to the defender who can occupy positions which give cover, while those attacking must very often, if not always, advance unconcealed. In some cases formation of the ground might enable them to approach under cover, but these are exceptional, and some or later he must discloss himself.

Whatever result smokeless powder may have when infantry is righting, it is quite clear to the army that it will exercise considerable influence on the other two arms, the artillery and cavairy. The advantages which it will conferent the army that it will exercise considerable influence on the other two arms, the artillery and cavairy. The advantages which it will conferent heartillery are set forth by ordnance officers as follows: It leaves a clear field of fire, and will render it possible, therefore, when firing upon artillery, to distinguish the guns from the intervals and to keep the fire of one's own guns directed on the former. The observation of the fire will also be simplified, while with the new powder the effect of projecties with the new powder the effect of projecties with the new powder the effect of projecties with the reference of the set of the set of the set of the set of the survivors will emigrate, and the hunter is lucky if he sees another for a year. As a matter of fact, caribou are scarce in Maine. Hunters who have travelled widely say there are more caribou upon the island of Newfoundland than in all the woods of Canada and the United States. Nova Scotla and New Brunswick still have large herds of these animals, but the crust hunters have thinned them out in Maine until it hardly payato seek for the few

not approve. The most dare-devil outlaw who came to the Maine woods was Paul Savarin, a French Canadian guide, who lived just over the line in New Brunswick. He started in life as a smuggler of Scotch whiskey, but a long imprisonment in Houlton jail cooled his ardor in this direction and started him as a poscher and aneak thief. He acted as a guide in the summer and autumn. As seen as the snow grew deen, making hard travelling for the bin game. he put on his snowshoes and killed moose and caribou for their pelts, leaving their carcasses to be eaten by foxes and bobcats. In one winter he sold the hides of \$500 caribou and 130 moose to one firm of snowshoe makers. It is estimated that he killed 1,000 moose and caribou every year for ten years. Of course, the game wardens were anxious to get him. A dozen or more wardens were sent out at different times, but when they came back none of them wished to make a second trip. Savarin had a playful way of sending builets among the hot ashes of the evening namp fire which the wardens did not enjoy. A few officers stayed on Savarin's trall a week or so, and one party drove him over the State line, but nobody caught him and nobody seemed desirous of meeting him alone.

In January, 1895, Bill Morjarry, who had just fought a bloodless duel with Jo tjarbriel jor the which burst in the rear of the smeke, caused by the enemy's guns, could not be seen. The effect of long-range fire will also be as easily observed as at short. When the artillery is employed in an open country it will be more difficult to con-ceal it, while the smoke formerly screened it from view. The movements of batteries, it is claimed, will be more difficult, since no adpossession of a handsome scuaw, volunteered to capture Savarin or scare him so badly that he would never come back to Maine. Accompanied by Tom Sheehan, a big telegraph lineman of Hangor, Bull started for Washington county carrying a whole arsenal of firearms and provisions enough to last a month. On the headwaters of the St. Croix they found the bodies of three frozen moose, and knew that Savarin was near by. Lying in sleeping bags nights and kindling no fires, they waiked about sixty miles northwest and found a whole yard of dead carlbou that had just been skinned. Near by, hidden under an upturned tree were sixty-three carlbou that had just been skinned. Near by, hidden under an upturned tree were sixty-three carlbou and eighteen moose hides. Following Savarin's tracks a few miles further they saw a strip of birch bark pegged to a tree. Scratched in charcoal on this bark was a rude drawing of Savarin aiming his rifle at Meriarty and Sheehan. On the other side of the bark was a charcoal sketch of Savarin giving a war dance upon the bodies of the two wardens. This was put up to tell the wardens that they would be snot if they went on. They waiked two miles aput up to tell the wardens that they would be snot if they went on. They waiked two miles deeper into the woods, wailowed down a great tract of snow, and turning their snowshoe heels in front, retraced their steps and concealed themselves close to the hidden pile of hides, knowing that Savarin would return for his treasures in a short time.

For two unsys they waited. The weather was so cold that the Hangor whiskey which the wardens had brought along to use in case of sickness, froze up and hroke the bottles. Farly on the morning of the third day, when both man were badly frostbitten, they heard the familiar crunch of anowshoes coming through the woods haif a mile away. Myriarty gave Sheehan his instructione, and, putting on his snowshoes, made a wide detour in order to come in behind Savarin. Sheehan, fixing up a

vanings can be taken of the smoke.

It is possibly an exaggeration to say, as many officers have who look upon the introduction of smokeless powder as necessitating a direct change in the present tactics, that the cavalry will be rendered valueless on the naturallel. This same opinion was expressed, the army mensay, when firearms were introduced, and still the cavalry remains an important factor in all military organizations. Some of the closest students of the art of war contend that the cavalrations of the art of war contend that the cavalrations of the art of war contend that the cavalrations. the cavalry remains an ... Some of the closest military organizations. Some of the closest students of the art of war contend that the cavatudents of the art of war contend that the cavatudents of the hattlefield in the students of the art of war contend that the cavairy will not appear on the hattlefield in the next great wars, but will be reserved solely to screen the infantry and for recunnoitoring purposes. Others contend that, as men on horses are higher above the ground than infantrymen, they have better opportunities of seeing what is before them regardiess of smoke clouds, and that when the time for the cavairy comes to act it makes no difference whether the enemy is concealed by waves of black smoke or standing in plain view.

FRENCH AND ENGLISH IN CANADA. Futtle and Blundering Attempts to Concili-

ate the French Canadians. MONTHEAL, Sept. 6. The tone of some of the French papers, notably the Patric of Montreal and the Erenement of Quebec, in commenting on certain articles that have recenty appeared in some of the English papers of Montreal and Toronto shows that the inents thrown at the French of the province of Cinches during and since the elections are prowoods half a mile away. Moriarly gave Sheehan his instructione, and, putting on his snowshoes, made a wide detour in order to come in behind Savarin. Sheehan, fixing up a dummy, left it in his exposed sleeping bag and hid in a fir thicket which Moriarly had designated. Savarin, expecting some sort of ruse, came on cautiously. Sheehan, who had a good view of him, said the French Canadian was the worst looking object he had ever asen. Creeping like a cat through the underbrush. Savarin saw the sleeping bag, and, taking good aim at the head of the dummy, fired three shots from his Winchester. The impact of the bulies, combined with a sharp gust of wind, tipped the bag over, and it rolled into a hollow.

With a yell learned from the wild Indians of Canada, Savarin leaned opon the bag, and before he had discovered his mistake Moriarty and Sheehan grappled with him. Though the fight was two against one, Savarin, having more at stake, made a gallant resistance. A ducing their natural effect. One English paper has suggested that the French of Canada should give up the use of their language in business and public affairs, and assimilatthemselves to the English. On this the Patric remarks that, in order to make themselves respected and teach the English to regard hem as equals, the French of Canada should speak their mother tongue at home, in business, everywhere, and at all times, and thus ahow that they are not "cattle to be assimisated." L'Amérique, a French paper published at Biddeford, Me., in an article on England's manner of regarding her colonies as so many flocks of sheep to furnish her with wool, asks how long Canadians are going to be content to remain colonists and sheep, which L'Amérique awa are synonymous as so many flocks of afteen to turnish her who wool, asks how long Canadians are going to be content to remain colonists and sheen, which L'dufrique says are synonymous terms. An English paper here run by an imported Anglo-Scotchman, which performed a curious rolle-face in the midst of the electoral campaign, to the wrong side, as it happened, says, in advocating a visit to Toronto by the French Canadian militar regiment of Montreal, the Sixty-fifth: "We are all Canadians, and we are all British." This sort of and Shrenan grappice with film. Industry the fight was two against one, Savarin, having more at stake, made a gailant resistance. A builet from his revolver went through the muscle of Moriarty's arm, and twice his hunting knife drew blood from Sheelaan. In return Meriarty pounded his face with a pine knot until he was unable to see, after which he was handcuffed and tied up with rawhide though. After a fire had been built and a block of whiskey had been thawed out Moriarty made Savarin an offer. According to the usage of the Maine courts the man who kills a exribou and cannot pay his fine goes to jail for three months, while the man who fails to pay his assessment for slaving a moose gets six months. According to Maine justice the sixty-three caribou and eighteen moose which Savarin had killed entitled him to free board in any county jail in the State for twenty-four years and nine months, as of the began his term then and there he could not get out until September, 1919, which was a long way to look about.

ch ea curiously with the development of the indemendence idea among the French and though the continuous content of the first of the fi suif he began his term then and there he could not get out until September. 1919, which was a long way to look ahead.

Moriarty said he did not wish to punish Savaria, but he did mean to put a stop to crust hunting, and asked Savarin if he would take an oath before his parish priest that he would never come to Maine again. As Savarin was glad to accept any terms, Sheehan was sent off on a 200-mile snowshoe journey after the priest, while Moriarty and his prisoner regaled themselves on moose and caribou sieake. Savarin father and brother returned with the priest, and among them they drew up an froneind contract, which Savarin has kept faithfully. On Moriarty's return to Baugor the Commissioners lectured him roundly for letting such a prize ellp through his hands. After that Moriarty rode one day through the glass doors of a Hangor barroom on horseback. This cowboy adventure got his name into the papers and he lost his commission as game warden. He is now get-

It is noticed that few numers carry them on a second trip. The rule is to carry as little bag-gage as possible, and use every energy in push-ing ahead for game.

From the Baltimore Sun.

fight will be fought under conditions impossible Fleet commanders will be enabled to manœuvre in sight of one another, execute dangerous tac tical movements and be kept at all times under perfect control by the Admiral commanding, through the system of flag signals. The advent of smokeless powder, therefore, promises to revclutionize the evolutions of modern war shine when in action. The entire fleet drill book will probably be overhauted and allowance made for the case with which signals can be used.

Montreal, the Sixty-fifth: "We are all Canadians, and we are all British." This sort of Chauvinism will defeat its own ends, for, if there is one thing the French of Canada will resist to the last, it is the attempt to destroy heir nationality and language. But this suiden desire of the Anglomaniac element in Canada to expetitate the French element coincil es curiously with the development of the independence idea among the French and thenon-jingo element among the English-speaking Canadians.

GETTING MARRIED.

TRIBULATIONS OF A WHITE COUPLE IN THE FRENCH CONGO. Sending Across the Sea for Their Parents'

Consent - A Wedding Cance with Pti Black Crew - The Happy Couple Said "Ont" All Right - Breached Coing Home. Six years ago a small party of white persons wended their way by cance to the house of a French official in the French Congo. Two of the party intended to be married. Being Americans, both imagined that they would be able to procure a license quite easily, not knowing how much red tape it takes to satisfy France. Their only witness was a French lady, the teacher at

the mission school. The French Commandant soon explained that first of all the consent of the Governor of the colony was necessary. To gain this consent the application must be signed by four witnesses, all men over twentyfive years of age. Soon the witnesses were procured, and they testified to the existence of the intended bride and groom. So the paper was drawn up, signed, and left at the post to be sent to the Governor.

The wedding party returned and waited. A little over six weeks passed, when notice arrived that the license could not be granted, inasmuch as the birth certificate of the contracting parties and the consent of their parents would be necessary. In case their parents were dead, their marriage and death certificates would be required. There was nothing to do but to write me and wait again. The documents which the expectant bridegroom required arrived after about four months, but those of the bride did not come until ten months after the first application was made for the license, her father live ing in the wilds of western Nebraska, seventy

After all the papers were at hand the Com-

After all the papers were at hand the Commandant visited the bridegroom and requested him to go to his office to arrange everything, so that, after a delay of two weeks, the ceremony might be performed. These two weeks would be needed to give every one living in the neighborhood a chance to digest the news of the approaching marriage, and in case any one knew of any impediment in the way, to enable him to inform the Government. For convenience a paper was nailed up at the post apnouncing the facts. Another was posted at the only other public place in that vicinity. Since the natives could not read the paper had to be explained every time one of them saw it.

At last the wedding day dawnon, a Saturday being chosen for the occasion. Everything was in readiness the day before, so that there could be an early start on this eventful day. The cance, about thirty feet long and four feet bright, had been fixed up with an awning from salleloth, easy chairs being placed for the wedding party of four-bride, groom, bridesmall, and an intimate friend who acted as best man. The natives (four-tend who acted as best man. The natives could be seased on plants fastened across the cance. These men were all dressed in white loin cloths and white shirts, and all were very

the canoe were seated on planks lastened across
the canoe. These men were sail dressed in white
loin cloths and white shirts, and all were very
anxious to work in the canoe on this occasion.
In the bow rice and fish were carried for the
dinner of the crew.
About 5 o'clock, an hour before sunrise, the
canoe left the station. The groom had taken it

In the bow rice and fish were carried for the dinner of the crew.

About 5 o'clock, an hour before sunrise, the cance left the station. The groom had taken it upon himself to steer. The voyage was quiet and peaceful until some one shouted "N Phuboo." Every one looked, but the hipopotamus had already disappeared, to rise again at a distance. The water was without a ripple, and the trees were mirrored in its depths. The banks on both sides seemed adorned for a feast, so many beautiful colors were to be seen in the trees. Everywhere the cries of birds and monkeys were to be heard, the rising sun disturbing the sleepers. Often the howl of the hipeia made discord in these melodies. After travelling about nine miles a place called Pilla N'Cumbia (Thirsty Steamer) was reached. Here the river widens into a lake three miles across. On this morning the water was like glass, although its waves had often swamped cances. An hour's strong pull across this lake, and the river narrowed again. Here they say the monkeys used to cross, forming a bridge by hanging to each other's tails. That must have been in those good old times when beeple were atraid of Africa.

The tide going down strongly soon brought our wedding party to their destination, a little after 9 A. M. A German merchant had invited them to his bouse and also prepared to spread the wedding breakfast. He, being the oldest among the Europeans, claimed the right to give away the bride. After they had rested a little and were joued by the necessary witnesses, they all proceeded to the French post, followed by a crowd of Africans who wanted to see this atrange performance. At the post everything was unusually nice, One could see that they had been very busy preparing to do justice to this grand occasion. Even a new carpet graced the floor. Monsieur the Commandant received the brids! party at the door and took them to their different seats, and chairs were placed for the couple to be married at the fool of the table, while the representative of France took the head. The w

head. The witnessess and others were seated at the sides.

After all were seated, Monsieur proceeded with the ceremony. He read very rapidly, but it was over half an hour before he came to the momentous question and asked the bride and groom to say "out." They said "out," and then he asked them to sign a large document. After the signatures of the witnesses, followed congratulations, and all was over until seated around the table at the German factory. Ten white people partook of this breakfast, which could not be surpassed in tropical Africa.

About 3 P. M. the canoe was ready and all the white people came to the river beach to see the newly married couple off. The bridesmald and best man returned with them. Throwing old shoes and rice after the canoe was now the order of the day. The return voyage at first was as pleasant as the morning journey, only the sky was a little cloudy and a tornado was com-

der of the day. The return voyage at first was as pieasant as the morning journey, only the sky was a little cloudy and a tornado was coming up. After passing the big lake the clouds began to look darker, the lightning flashing on all sides, and the river seemed to boil, the water was so rough. Soon the rearing of the wind and rashing of the 5 ming rain told of danger.

The cance was out in the middle of the river when the wind struck it. There was nothing to do but to try to reach the shelter of the shore. Birds were fluttering in all directions seeking a place of rest. The bridegroom was at the helm again, and only his presence of mind saved the whole party from a watery grave. He turned the cance and shouted, "Full away, boys." The waves were rushing in, making the work a good deal harder, but after a short time, which seemed very long, though, the shelter of the mangroves was reached. Here in comparative safety they waited until the storm had spent its fury. The natives dipped the water from the cance, and after a delay of nearly an hour all were ready to go on. Every one was thoroughly drenched, but thankful that it was not worse. About it o'clock the home was reached, and the day ended in a quiet and enjoyable evening.

So ended the first European wedding in the French Congo. French Congo.

NEW IRISH STORIES.

Some Assecdates Told in the Recently Published Journals of Mr. O'Neill Daunt.

Some good stories are told in the journals Mr. O'Nelli Daunt, recently published under the title, "A Life Spent in Ireland." At one time Mr. Daunt was the guest of Father Burke in whose parish one of the sanguinary tithe affrays occurred between the parsons and the Catholic people. The soldiers were called on to fire on the populace, and some persons were killed. Soon afterward Father Burke received a Government circular inquir-ing the number of his Jock for the purpose of making up a census. He answered that, as making up a census. He answered that, as he had not yet ascertained to what extent his people were thinned out on the last shooting day he could not furnish the required informa-

tion with accuracy.

When the Poor law was first introduced a Dublin beggar woman, whom a gentleman referred to the poorhouse, said.

"This Poor law's a grand thing for the sowls of the gintlemen."

"Why so?"

Bekalte now when we axes for alms they only say go to the poorhouse, but before there was a poorhouse they used to say, 'Go to the divil.' At a contested election in Garway a landlord

At a contested election in valvay a manual residence of the foster sold his whole stock of votes for a good sum to each of the caudidates. Having pocketed the money of both, he called the voters together. Foster was too generous to keep all the traffic to himself.

Boys, he exclaimed to his expectant seris, "I don't care a button who you vote for. I have made the most I could of you; go and sell your vote, every man of you, to the best ad-

have made the most I could of you, go and sell your yote, every man of you, to the best advantage you can.

When Mr. Hemphill was canvassing Cashel he found that a party of electors, known as "commoners," numbering some thirteen or fourteen, were notoriously corrupt and always sold their vote to the highest indeer. Their usual price was £20 per vote. Hemphill requested the priest to preach on the sin of trafficking on the franchise, and the priest compiled and denounced corrupt trafficking in votes as a mortal sin. The next day Hemphill metous of the commoners, and, anxious to learn what effect the sermen had preduced on these venal centemen, he asked the man whether he had been at mass_on the previous day.

I was, you Honor.

"Was not that sermen on bribery excellent?"

"It was an elegant sermen your monor."

"Will it do good, do you think?"

"I think it will make the election run very close, your Honor."

"Hink it will make the election run very "Hink apprended."

close, your Honor."
"How so?"
"Why, we always got £20 for a vote before we knew it was a sin; but, as his reverence says se!l be damned for se!line our votes, we can't for the future take less than £40."
When Lord Muskerry was dying the parson in attendance remarked that life and its vanities would soon pass away, and exhorted him to repeat.

to repent. For what should I repent?" de-manded the old lord. "Why, I don't remember that during my whole life I ever denied my-elf anything."